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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/651,090

08/18/2003

Jeffrey I. Robinson

NETF-002

7740

36822 7590 05/21/2007  
GORDON & JACOBSON, P.C.  
60 LONG RIDGE ROAD  
SUITE 407  
STAMFORD, CT 06902

EXAMINER

PHAN, MAN U

ART UNIT

PAPER NUMBER

2616

MAIL DATE

DELIVERY MODE

05/21/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/651,090	ROBINSON, JEFFREY I.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Man Phan	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 12, 14-20, 27-32, 34-40 and 47-52 is/are rejected.
- 7) ☒ Claim(s) 6-11, 13, 21-26, 33, 41-46 and 53 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/22/04</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. The application of Robinson for a "method, apparatus and system providing improved voice routing capabilities" filed 08/18/2003 has been examined. Claims 1-53 are pending in the application.

2. The applicant should use this period for response to thoroughly and very closely proof read and review the whole of the application for correct correlation between reference numerals in the textual portion of the Specification and Drawings along with any minor spelling errors, general typographical errors, accuracy, assurance of proper use for Trademarks <sup>TM</sup>, and other legal symbols @, where required, and clarity of meaning in the Specification, Drawings, and specifically the claims (i.e., provide proper antecedent basis for "the" and "said" within each claim). Minor typographical errors could render a Patent unenforceable and so the applicant is strongly encouraged to aid in this endeavor.

### ***Claim Objections***

3. Claims 31, 33 are objected to because of the following informalities:

Claim 31, line 1: "An apparatus according to claim 12" should change to –An apparatus according to claim 14—.

Claim 33, line 1: "An apparatus according to claim 12" should change to –An apparatus according to claim 14—.

Appropriate correction is required.

***Claim Rejections - 35 USC ' 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 16 recites limitations "said at least one table" in line 2. There is insufficient antecedent basis for these limitations in the claim.

***Claim Rejections - 35 USC ' 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-5, 12 and 14-20, 27-32, and 34-40, 47-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones et al. (US#6,141,341) in view of Pitchford et al. (US#5,844,981).

In so far, as understood with respect to claims 14-20, 27-32, the references disclose method and system for routing voice calls over diverse networks, according to the essential features of the claims. Jones et al. (US#6,141,341) discloses in Figs. 4 & 5 illustrated hardware block diagram of the network premises gateway 10 and its telephone subsystem 34, which comprises a telephony manager 38, a POTS interface 40 and a telephony crossbar 42. The

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telephony subsystem 34 also comprises other components, such as an IP telephony interface 44, a POTS output port 46 (used for connection of a local POTS telephone 26 to the network premises gateway 10), a compression-decompression engine (CODEC) and packetizer 48 and a music on-hold module 50. Although the telephony subsystem 34 comprises a multitude of components, the following description is limited to the telephony manager 38, the POTS interface 40 and the telephony crossbar 42. The telephony manager 38 supplies all the functions for VoIP-based calls which are normally supplied by a switch in the PSTN 16 for POTS telephones 26. For example, the telephony manager 38 comprises a dual tone multi-frequency (DTMF) detection and call progress generator 52. The DTMF detection and call progress generator 52 comprises a detector for receiving a sequence of signals generated by the POTS telephone. In addition to performing DTMF detection, the DTMF detection and call progress generator 52 generates DTMF signaling and supplies dial tones and other appropriate call progress tones for the POTS telephones 26 when the network premises gateway 10 is operating. The incoming call handler 54 generates ringing for the POTS telephones 26 when signaled by the system controller and memory component 32. Other features of the telephony manager 38 include: support for control of the telephony crossbar 42 via a crossbar manager 56; DTMF generation and pulse dialing, flash hook, on/off-hook; and basic user interface for control of user interaction for VoIP answering and origination (Col. 3, lines 13 plus).

Jones further teaches in operation, the DTMF detection and call progress generator 52 performs DTMF functions on signals generated from a POTS telephone 26, sends a digital representation of the information to the system controller and -memory component 32 for buffering into memory, and replaces the PSTN dial tone on all POTS telephones 26 with a

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slightly modified dial tone (i.e., the audible characteristics, tone and/or pitch of the PSTN dial tone is altered) when a POTS telephone 26 is taken off-hook. The slightly modified dial tone reminds the user that he has the option of placing an internet-based call, thus indicating that the network premises gateway 10 is currently on-line. Should the network premises gateway 10 be shut-off or down, the user hears the PSTN supplied dial tone when a POTS telephone 26 is taken off-hook. The telephony manager 38 also comprises an incoming call handler 54. The incoming call handler 54 supports PSTN call waiting notification during the presence VoIP calls and ring detection and generation with cadence information to the user. For example, the incoming call handler 54 signals the system controller and memory component 32 and DTMF detection and call process generator 52 which notifies the user of an incoming PSTN-based call when the present call is a VoIP-based call. The system controller and memory 32 is alerted via a standard H.323 alert message of an incoming VoIP call and signals the DTMF detection and call process generator 52 which notifies the user of 1) an incoming VoIP-based call when the present call is also a VoIP-based call; and 2) an incoming VoIP-based call when the present call is a PSTN-based call. Notifying the user of an incoming PSTN-based call when the present call is also a PSTN-based call is currently supported by the local telephone company. In operation, during the presence of a call, the DTMF detection and call process generator 52 notifies the user of the incoming call by an audible tone that is user configurable, so that the user can ascertain whether the call is a PSTN-based call or a VoIP-based call. When no call is present, i.e., the POTS phones are on-hook, an incoming PSTN-based call and an incoming VoIP-based call is preferably programmed to have different ringing cadence, thus informing the user whether the

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incoming call is a PSTN-based or VoIP-based call based solely on the ringing cadence (Col. 5, lines 52 plus).

Jones does not expressly disclose the step of controlling the switch matrix to disconnect the particular line from at least one trunk based upon the classification tag to enable the outgoing voice call to proceed over another one of the at least two trunks. However, Jones teaches the system controller and memory component 32 controls the functions and operation of the network premises gateway 10. User interaction with the network premises gateway 10 is controlled by a user interface program which resides in and is executed on the system controller and memory component 32. The system controller and memory component 32 is designed to contain functions and operate in a manner similar to a standard microprocessor controlled computer system. The system controller and memory component 32 is the heart of the network premises gateway 10 and it controls all the network premises gateway's 10 functions, operations, and states. The system controller and memory component 32 comprises a memory system, a comparator and a microprocessor. The memory system buffers at least a first signal generated by the POTS telephone 26. The comparator attempts to detect a predetermined signal that signifies a VoIP-based call. The microprocessor and associated software program intercepts subsequent signals in the sequence, absent the at least first signal that was buffered, and places the VoIP-based call via an internet when the predetermined signal is detected (*controlling the switch matrix to enable the outgoing voice call to proceed over another one*)(See Fig. 4; Col. 3, lines 25 plus). In the same field of endeavor, Pitchford et al. (US#5,844,981) teaches a method and system for improved routing through a wide area telephone service (WATS) using indirect routing. When a call is placed from a calling telephone station to a called telephone station, a

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telephone network attempts to route the call from the originating switch, on which the call entered the network, to a local exchange carrier serving the called station. If other routing paths in the network are unavailable or unsuccessful, a network processor recommends a routing from the originating switch to the local exchange carrier through a tandem switch and the WATS line of another telephone network. This capability provides a reduced incidence of blocked calls, such as may result from telecommunications system outages (See Fig. 2b; Col. 2, lines 21 plus).

Regarding claims 1-5, 12, they are method claims corresponding to the apparatus claims above. Therefore, claims 1-5, 12 are analyzed and rejected as previously discussed with respect to the claims above.

Regarding claims 34-40, 47-52, they are system claims corresponding to the apparatus and method claims above. Therefore, claims 34-40, 47-52 are analyzed and rejected as previously discussed with respect to the claims above.

One skilled in the art would have recognized the need for efficiently routing both PSTN based calls and Internet based VoIP calls through WATS, and would have applied Pitchford's novel use of the improved routing techniques to WATS into Jones's teaching of an Internet Protocol telephone system using a telephone to place and receive voice over Internet Protocol (VoIP)-based and public switched telephone network (PSTN)-based telephone calls. Therefore, It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to apply Pitchford's methods and systems for improved routing to WATS into Jones's VoIP telephone system and method with the motivation being to provide a method and system for routing voice calls over the diverse networks.



*Allowable Subject Matter*

7. Claims 6-11, 13 and 21-26, 33 and 41-46, 53 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is an examiner's statement of reasons for the indication of allowable subject matter: The closest prior art of record fails to disclose or suggest wherein a ring detect circuitry, operably coupled to the switch control means, that detects a ring signal generated during initiation of an incoming voice call over a particular trunk, and supplies a ring detect control signal to the switch control means; wherein the switch control means operates to electrically connect the particular trunk to at least one line in response to the ring detect signal; wherein the plurality of lines are realized by time slots on at least one multi-channel trunk, the plurality of trunks are realized by time slots on at least one other multi-channel trunk, and connection of the line to the plurality of trunks, and the switching means comprises switching logic that performs space and time shifting of digital data over the time slots of the multi-channel trunks, as specifically recited in claims.

9. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

*Conclusion*

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The Ford (US#6,463,051) show a internet calling system.

The Kim (US#2004/0114515) show a VoIP call control apparatus in private branch exchange and method thereof.

The Meyers (US#6,041,116) show a method and apparatus for controlling outbound calls.

The Rashti (US#2003/0231616) show a method of transporting VoIP via public access internet workstations.

The Fuller et al. (US#7,203,186) show a system and device for integrating IP and analog telephone systems.

The Jones et al. (US#6,404,764) show a VoIP telephone system and method.

The Jeong et al. (US#2003/0086412) is cited to show a VoIP gateway system connected through extension subscriber circuit of private branch exchange.

The Thompson (US#6,985,494) show system for interconnecting standard telephony communications equipment to internet protocol networks.

The Jeong (US#6,819,664) show a voice communication system.

The Chun et al. (US#7,016,377) show a home network system in ADSL system.

The Sylvain (US#2004/0120498) show an interworking of multimedia and telephony equipment.

11. Any inquiry concerning this communication or earlier communications from the

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examiner should be directed to M. Phan whose telephone number is (571) 272-3149. The examiner can normally be reached on Mon - Fri from 6:00 to 3:00.

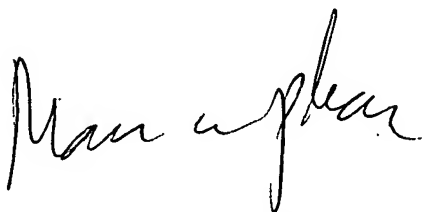
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin, can be reached on (571) 272-3134. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at toll free 1-866-217-9197.

Mphan

05/17/2007.

A handwritten signature in black ink, appearing to read "Man U. Phan", written in a cursive style.

**MAN U. PHAN  
PRIMARY EXAMINER**